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**REMARKS****Claim Rejections 35 USC 102**

Claims 25-27, 30, 32-33, 38-40, 42-43, 55-56, 58-60, 62, 65, 67-69, 74, 76 were rejected under 35 USC 102(b) as being anticipated by Arango. The rejection is respectfully traversed. The claims are discussed in two groups: Claims 25-27, 30, 32-33, 38-40, 42-43 as the first group and claims 55-56, 58-60, 62, 65, 67-69, 74, 76 as the second.

**CLAIMS 25-27, 30, 32-33, 38-40, 42-43**

**The claims distinguish the invention from Arango because resources of the “third” network for both directions of transmission are reserved in Arango by only one party**

In this discussion, applicants point out that in Arango, the resources of the “third” network for both directions of transmission are reserved by only one party. This is different from the invention as defined in these claims. The specific claim language is pointed out after Arango is discussed.

A significant basis of the rejection is the Office action’s position that the sending of various request packets transmitted in Arango anticipates applicants’ claim recitations that call for “reserving” packet network resources of the “third” network on the part of both the calling and called parties.

This is not a justifiable reading of Arango.

It is true that both ends of the connection in Arango participate in sending and receiving the request packets. However, the final result of the transmission of the various request packets in Arango is only an agreement between the communicating parties that a communication channel having agreed-upon characteristics is to be set up. The sending of those packets back and forth does not effectuate any reserving of

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resources. Two parties could agree, for example, that they *want* to reserve seats on a certain airline flight but that doesn't mean that they have actually *reserved* them. The act of reserving a resource necessarily involves making a request to the entity that controls the resources that those resources be set aside or otherwise allocated to the requestor.

In Arango's case, any action that could possibly be said to constitute "reserving" occurs only after the communicating entities have finished exchanging their request packets. It is only at that point, as detailed below, that one of the parties communicates with the Guaranteed Bandwidth Network (said in the Office action to correspond to the "third" network of applicants' claims) for purposes of actually setting up the channel for communications in both directions. Specifically, the examiner's attention is directed to col. 12, lines 14-56, where it is indicated that once an agreement is reached for a two-way communication session, the router in one of the nodes—router 226— sets up the communication channel as agreed.

**Assume that an agreement eventually is reached. Suppose the OGB server 228 is to initiate the time-sensitive communications session which is a two-way time-sensitive communication session. ... The OGB server 228 then instructs the guaranteed bandwidth router 226 to set up a communication channel of a specified, continuous bandwidth (as agreed during the negotiations above) to the guaranteed bandwidth router 246 using the guaranteed bandwidth address obtained from the OGB server 248 [emphasis added].**

The channel that is set up by router 226, per the above passage, is then used for communications in both directions. This can be seen from, for example, two particular passages in Arango. The first is at col. 12, lines 58-62 and discusses packet transmission in a first direction—from host 210 to host 250:

The OGB server 228 also modifies the routing table of the guaranteed bandwidth router 226 so as to route packets originating from the host 210 and destined to the host 250 to the router 246 and to transmit such packets on the channel thus opened.

Virtually identical language is used in describing communications in the other direction—from host 250 to host 210—at col. 13, lines 5-10:

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The OGB server 228 also modifies the routing table of the guaranteed bandwidth router 246 so as to route packets originating from the host 250 and destined to the host 210 to the router 226 and to transmit such packets on the channel opened by the guaranteed bandwidth router 226 [emphasis added].

It is important to note from this passage that, per the underlined words, the channel that is used in this second direction of transmission is the channel that was set up by router 226. That is, the reserved resources for both directions of transmission were reserved from one end of the call.

Turning now to applicants' claim language, each of applicants' claims 25-27, 30, 32-33, 38-40, 42-43 limits the claimed invention to a scenario under which the resources of the third, or backbone network are not reserved responsive to indications from only one of the parties, as is the case in Arango. The claims thus distinguish the invention from Arango on this basis, assuming for purposes of argument that such setting up of the channel in Arango's Guaranteed Bandwidth Network constitutes a "reserving" of packet network resources. In particular ....

Claims 25-27, 30: Reference may be had to independent claim 25, lines 15-20 reciting that both the calling and called parties participate in reserving packet resources of the "third" network. Specifically, lines 15-17 recite that the indication from the *calling* party is a message "indicating...for packet network resources of the third packet network to be reserved" and lines 18-20 recite that the indication from the *called* party is a message "indicating...for packet network resources of the third packet network to be reserved."

Claims 32-33: Reference may be had to independent claim 32, lines 12-14 reciting that the reservation policy for the backbone packet network includes a policy that capacity in the backbone packet network for transmit and receive directions of communication is reserved "at different times." As noted above, in Arango any reserving of resources over the Guaranteed Packet Network is carried out by router 226 for both directions of communication at the same time.

Claims 38-40, 42-43: Independent claim 38 defines the invention in terms of actions taken when a reserve message for a two-directional call is received from a

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calling party. Note lines 6-7 of the claim stating that in response to the reserve message, packet network resources of a backbone packet network are reserved “for only one direction of the call.” This, again, is contrary to Arango wherein any reserving of resources over the Guaranteed Packet Network is carried out by router 226 for both directions of the call.

Claims 42-43: These are dependent claims depending ultimately on claim 38 and distinguish the invention from Arango for at least the reason set forth above relative to claim 38. In addition, claim 42 adds the further limitations that a second reserve message for the call is received from a *called* party and that in response to that second reserve message, packet network resources of a backbone packet network are reserved “for the second direction of the call.” This claim thus further distinguishes the invention from Arango inasmuch as the called party in Arango does not reserve resources on the Guaranteed Packet Network, this being carried out by router 226 for both directions of the call.

**The claims distinguish the invention from Arango because  
there is no Reservation of Resources in Arango’s LAN Subnetworks**

The only action in Arango that might be said to constitute a “reserving” of resources is the action of setting up a channel over the Guaranteed Bandwidth Network, corresponding to applicant’s backbone network of the illustrative embodiment and corresponding to applicants’ recited “third” network.

However, each of the claims rejected under 35 USC 102 recite that packet network resources are also reserved for at least one other network. Depending on the claim in question, that other network is referred to as the “first” and/or “second” network or as an “access” network. This is a point of distinction between the claimed subject matter and Arango—a point of distinction which, by the way, applicants neglected to point out in their Remarks of 06/28/2004 responsive to the first rejection of the claims based on Arango in the Office action of 04/14/2004.

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Specifically, the Office action equates applicants' recited "first" and "second" networks with Arango's LAN subnetworks, such as those shown in FIG. 5. Applicants will assume for purposes of discussion only and without admission, that Arango's LAN subnetworks shown in the "Prior Art" are applicable to the network architecture of FIG. 6. Even assuming, then, that the exchange of request packets, per FIG. 6, could be carried out by hosts connected to LAN subnetworks, per FIG. 5, there is no teaching in Arango that any resources of the LAN subnetworks (i.e., the "first" and "second" networks") are reserved, as applicants' claims call for. It may be true that the negotiating hosts communicate with each other over their respective LAN subnetworks when exchanging reserve packets as discussed above. However, it appears that the resources of the LAN subnetworks are simply used by the entities connected to them. No "reserving" is involved.

And certainly, then, Arango's LAN subnetworks cannot be said to have a "reservation policy" as these claims recite.

**CLAIMS 55-56, 58-60, 62, 65, 67-69, 74, 76**

**The claims distinguish the invention from Arango because of the involvement of a packet network device, connected between the access and backbone networks, in resource reservation for both of those networks**

These claims are directed to a novel aspect of the invention relating to the way that resources are reserved on the recited "first" or "access" network and the recited "second" or "backbone" network. It is to be noted that these claims differ in terminology from claims 25-27, 30, 32-33, 38-40, 42-43 in that in *these* claims, the term "second" applies to a network corresponding in the embodiment to the backbone network, whereas in claims 25-27, 30, 32-33, 38-40, 42-43, the backbone network corresponds to the recited "third" network. For convenience, these remarks will use the terms "access" and "backbone" but it is not intended that those terms be imputed into claims that use the broader terms "first" and "second."

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Specifically, independent claim 55 is directed to a method performed by a packet network device that is coupled to both the access network and the backbone network. This corresponds in the illustrative embodiment to, for example, applicants' edge router 120. That device receives a resource reservation message over the access network and, in response thereto, reserves resources in both the access and backbone networks, each in accordance with their own policy. See, for example, lines 6-8 of claim 55.

No such method is disclosed in Arango. Specifically, no device in Arango reserves resources in both Arango's LAN subnetworks and Arango's Guaranteed Bandwidth Network. As discussed below, there actually isn't any reservation of resources in Arango's LAN subnetworks.

Even if there is some reservation of resources in Arango's access link 212—which is said to be, among various possibilities, a cable television network link—there is no teaching in Arango that those resources are reserved by Arango's router 226, which, as discussed above, is the entity that reserves resources over the Guaranteed Bandwidth Network.

In view of the foregoing, it is submitted claim 55, and thus its dependent claims 56, 56, 58-60, 61 62, 65, 66, 67, 77 and 78, distinguish the invention from Arango.

Independent claims 68 and 74 are also directed to this aspect of the invention, and thus those claims and their dependent claims 69-73, 75, 79 and 80 also distinguish the invention from Arango.

**The claims distinguish the invention from Arango because**  
**there is no Reservation of Resources in Arango's LAN Subnetworks**

As noted above, the only action in Arango that might be said to constitute a "reserving" of resources is the action of setting up a channel over the Guaranteed Bandwidth Network, corresponding to applicant's backbone network of the illustrative embodiment. In these claims, as contrasted with claims 25-27, 30, 32-33, 38-40, 42-43, as already discussed, applicants' backbone network finds correspondence with the recited "second" network.

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Apart from that difference in terminology, the same argument applies here as applies to claims 25-27, 30, 32-33, 38-40, 42-43 discussed above in that each of claims 55-56, 58-60, 62, 65, 67-69, 74, 76 recites that packet network resources are also reserved for at least one other network. In these particular claims, that other network is the recited "first" network or an "access" network. As noted above, there is no teaching in Arango that any resources of the LAN subnetworks (i.e., the "first" and "second" networks") are reserved.

### **Claim Rejections 35 USC 103**

Each of the other claims in the application was rejected under 35 USC 103 as being unpatentable over Arango in view of Roy and/or Hin.

These rejections are respectfully traversed.

Firstly, in view of the discussion above showing how Arango does not meet particular limitations of the independent claims in the application, it is submitted that each of the claims rejected under 35 USC 103 likewise distinguishes the invention over the prior art. Applicants specifically note in this regard in independent claim 44, the limitation at lines 13-15 reciting that the reservation policy for the backbone packet network includes reserving, in response to the reserve message for a two-directional call, capacity in the backbone packet network "for only one direction of the call," again distinguishing from Arango for the reasons pointed out above.

Moreover, with respect to claims 34, 44, 45, 48, 49, 51-54, 57, 70-71 and 75, it is submitted that even if it were obvious to combine Roy with Arango in the manner suggested in the Office action—a point that applicants do not concede—the Office action still has not shown how the language of these claims would be anticipated by such a combination. For example, claim 34 recites different reservation policies for the access packet network and the backbone packet network, these being reservation of resources on a per-call and multiple-call basis for the access and backbone networks, respectively. Applicants do not see how any obvious combination of Arango and Roy meets this limitation.

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**Minor Claim Amendment**

Claim 79 has been amended to insert language inadvertently missing from this claim.

Reconsideration is requested.

Respectfully submitted,

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